

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; and

I verily believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **Antisense Modulation of ABC transporter MHC 1 Expression** the specification of which:

(XX) is attached hereto.

() was filed on _____ as Application Serial No. _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to be material to the patentability of this application in accordance with 37 CFR § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a-d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of any application on which priority is claimed:

Country	Number	Date Filed	Priority Claimed		
			Yes	No	
			Yes	No	
			Yes	No	

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to be material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Application Serial No.	Filing Date	Status (pending, patented)

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

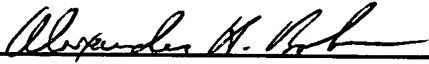

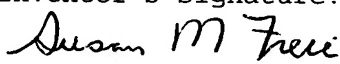
Provisional Application No.	Filing Date

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: Herb Boswell, Registration No. 27,311; Laurel Spear Bernstein, Registration No. 37,280; Neil S. Bartfeld, Registration No. 39,901; April C. Logan, Registration No. 33,950; and Donna T. Ward, Registration No. 48,271 of Isis Pharmaceuticals, Inc.; and Jane Massey Licata, Registration No. 32,257, and Kathleen A. Tyrrell, Registration No. 38,350 of the firm of Licata and Tyrrell P.C., 66 East Main Street, Marlton NJ 08053.

Address all telephone calls and correspondence to:

Jane Massey Licata or Kathleen A. Tyrrell
Licata and Tyrrell P.C.
66 East Main Street
Marlton NJ 08053
(856) 810-1515

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1	Full Name: Alexander H. Borchers	Inventor's Signature: 	Date: 12-17-01
	Residence: 733 Winding Way Encinitas California 92024	Citizenship: USA	
	Post Office Address:same as above		
2	Full Name: Donna T. Ward	Inventor's Signature: 	Date: 12/17/01
	Residence: 41349 Magnolia Street Murrieta California 92562	Citizenship: USA	
	Post Office Address:same as above		
3	Full Name: Susan M. Freier	Inventor's Signature: 	Date: 12-17-01
	Residence: 2946 Renault Street San Diego California 92122	Citizenship: USA	
	Post Office Address: same as above		

DOCKET NO.: RTS-0353

"Express Mail" Label No.: EV053177129US

Date of Deposit: 12/14/2001

A S S I G N M E N T

WHEREAS, we Alexander H. Borchers, residing at 733 Winding Way, Encinitas, California 92024, Donna T. Ward, residing at 41349 Magnolia Street, Murrieta, California 92562 and Susan M. Freier, residing at 2946 Renault Street, San Diego, California 92122 hereinafter referred to as the assignors, are the joint inventors of certain inventions or improvements for which we have made application for Letters Patent to the United States, identified as Case No. RTS-0353 entitled **Antisense Modulation of ABC transporter MHC 1 Expression**; filed concurrently herewith; and

WHEREAS, Isis Pharmaceuticals Inc. hereinafter referred to as the assignee, of 2292 Faraday Ave, Carlsbad, California 92008 is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time a request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent

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protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 12/17/01


Alexander H. Borchers

STATE OF California)
COUNTY OF San Diego) ss.

This 17th day of December 2001, before me personally came the above-named Alexander H. Borchers, who executed the foregoing Assignment in my presence, and who acknowledged to me that he/~~she~~ executed the same of his/~~her~~ own free will for the purposes set forth therein.




Notary Public

DOCKET NO.: RTS-0353

Dated:

12/17/01

Donna T. Ward
Donna T. Ward

STATE OF

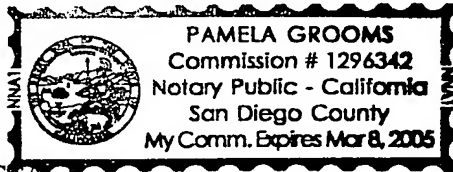
California

COUNTY OF

San Diego

ss.

This 17th day of December 2001, before me personally came the above-named Donna T. Ward, who executed the foregoing Assignment in my presence, and who acknowledged to me that ~~he~~/she executed the same of ~~his~~/her own free will for the purposes set forth therein.



[SEAL]

Pamela Grooms
Notary Public

Dated:

12/17/01

Susan M. Freier
Susan M. Freier

STATE OF

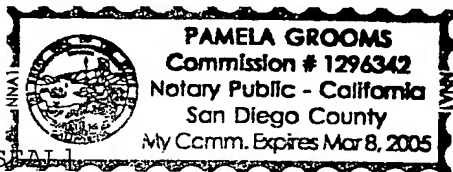
California

COUNTY OF

San Diego

ss.

This 17th day of December 2001, before me personally came the above-named Susan M. Freier, who executed the foregoing Assignment in my presence, and who acknowledged to me that ~~he~~/she executed the same of ~~his~~/her own free will for the purposes set forth therein.



[SEAL]

Pamela Grooms
Notary Public